

WHAT IS CLAIMED IS:

1. In the manufacture of a magnetic recording medium, a method of varying coercivity comprising the steps of

- a) providing a substrate for supporting magnetic layers,
- b) sputtering on the substrate an underlayer having a lattice structure for matching with a magnetic layer lattice structure,
- c) sputtering a first magnetic layer on the underlayer, the first magnetic layer having a first alloy composition, and
- d) sputtering a second magnetic layer on the first magnetic layer, the second magnetic layer having a second alloy composition which differs from the first alloy composition, whereby coercivity of the two magnetic layers is determined by the relative thicknesses of the two magnetic layers.

2. The method as defined by claim 1 wherein steps c) and d) form magnetic layers each having a thickness in the range of 2 nm – 50 nm.

3. The method as defined by claim 2 wherein each of the two magnetic layers comprise a cobalt alloy with at least one of chromium, platinum, tantalum, boron, niobium, molybdenum, nickel, tungsten, carbon, aluminum, iron, and manganese.

4. The method as defined by claim 3 wherein step c) forms a first magnetic layer having an alloy composition of Co-20Cr-10Pt-8B, and step d) forms a second magnetic having a composition of Co-22Cr-10Pt-6B.

5. The method as defined by claim 3 wherein step c) forms a first magnetic layer having a composition of Co-20Cr-10Pt-8B, and step d) forms a second magnetic layer having a composition of Co-26Cr-10Pt-6B.

6. The method as defined by claim 3 wherein step c) forms a first magnetic layer having a composition of Co-20Cr-10Pt-8B, and step d) forms a second magnetic layer having a composition of Co-20Cr-8Pt-4Ta.



